

## **II. RESPONSE TO OFFICE ACTION**

### **A. Status of the Claims**

Claims 1-48 were pending at the time of the Action. Claim 2 has been canceled, and claims 3, 4, 5, 12, 20, 33, and 43 have been amended in the Amendment contained herein. New claim 49 has been added by amendment. No new matter is added by the amendments or the new claim. Therefore, claims 1 and 3-49 are pending after entry of the Amendment.

### **B. Rejections under 35 USC § 103(a)**

#### ***1. The standard for establishing a prima facie case of obviousness.***

It is well settled that “[t]he examiner bears the initial burden of factually supporting any *prima facie* case of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under *no* obligation to submit evidence of nonobviousness.” *Manual of Patent Examining Procedure* (M.P.E.P.) § 2142 (8th Ed. Inc. Rev. No. 1) (emphasis added).

To establish a *prima facie* case of obviousness, the Action must show: (1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) a reasonable expectation of success; and (3) the prior art reference teaches or suggests all of the claim limitations. *See In re Vaeck*, 947 F.2d 488, (Fed Cir. 1991). With respect to element (1), “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” M.P.E.P. at § 2143.01. If any one of the three elements is missing, an obviousness rejection cannot be maintained.

**2.     *The rejection over Laurent et al. in view of Lim et al. and further in view of Murakami et al. is improper.***

Claims 1-8, 10-11, 22-48 stand are rejected under 35 USC § 103(a) as obvious over Laurent *et al.* (US 2002/0046431 A1) in view of Lim *et al.* (US 6,461,391), and further in view of Murakami *et al.* (US 2003/0145395 A1). The Action states that Laurent *et al.* teaches the elements of the rejected claims except for reciting cationic tertiary para-penylenediamine compounds as oxidation bases and, while teaching a composition further comprising vitamins and provitamins such as panthenol, does not specify B vitamins or provitamins, tocopherols, tocopherol esters or vitamin F. The Action states that Lim *et al.* teaches tertiary para-penylenediamine compounds having all the limitations of claimed formula (I) and that Murakami *et al.* teaches a dyeing formulation comprising vitamins such as vitamins B, nicotinic acids, pantothenic acids and tocopherol. The Action alleges that it would have been obvious for one of skill in the art to modify the teachings of Laurent *et al.* by using the oxidation bases of Lim *et al.*, motivation being provided by the compounds of Lim *et al.* being “suitable primary intermediates for hair coloring compositions for providing good oxidative coloration of hair such as light fastness, fastness to shampooing, fastness to permanent wave treatment and suitable for providing a wide variety of different color shades with primary intermediate and coupler compounds.” One of skill in the art would have allegedly been motivated to modify the vitamins disclosed by Laurent *et al.* by the teachings of Murakami *et al.*, as the later states that vitamins are a component that is commonly used in hair care products. Applicants respectfully traverse.

**a.     *Murakami et al. (US 2003/0145395 A1) is not prior art.***

Murakami *et al.* (US 2003/0145395) is an application nationalized under 35 USC § 371 from PCT/JP02/04290, filed April 26, 2002, and published in Japanese as WO 02/087529. As described in MPEP § 706.02(f)(1) Example 5, a published application that is the national stage of

a PCT application filed after November 29, 2000, and which was not published in English, has no 35 USC § 102(e)(1) date, nor would an issued patent have a 35 USC § 102(e)(2) date. Thus, the effective date of Murakami *et al.* as art is the publication date, August 7, 2003. This date is after the December 13, 2002, foreign application priority date of the instant application, and also after the February 4, 2003, U.S. provisional priority application date, both of which disclose the invention in its entirety. Thus, Murakami *et al.* (US 2003/0145395 A1) is not available as prior art against the instant invention. However, as discussed below, even if the subject matter was citable as prior art, it would not render the invention unpatentable as discussed below.

***b. The references do not teach or suggest all of the limitations of claims 27-31.***

Claims 27 recites various tocopherols; claims 28 and 29 recite vitamin E and vitamin E esters; claim 30 recites pantothenic acid, niacinamide, nicotinic acid, inositol, biotin, thiamine, riboflavin, pyridoxine, carnitine and folic acid; and claim 31 recites pantothenic acid. As stated above, Murakami *et al.* is improperly cited as a reference. Laurent *et al.* recites a composition further comprising vitamins and provitamins such as panthenol, the later being a provitamin for vitamin B5. The Action does not proffer, nor would Applicants accede, that the generic disclosure of “vitamin and provitamins” would render obvious specific vitamin species. Thus, in the absence of Murakami *et al.*, the remaining references do not teach all of the limitations of claims 27-31, and, as such, the rejections are legally insufficient to establish a *prima facie* case of obviousness in regard to these claims.

***c. There is no motivation to combine the teachings of Laurent et al. with the teachings of Lim et al.***

When obviousness is based on the teachings of multiple prior art references, the Action must establish some “suggestion, teaching, or motivation” that would have led a person of

ordinary skill in the art to combine the relevant prior art teachings in the manner claimed. See *Tech Air, Inc. v. Denso Mfg. Mich, Inc.*, 192 F.3d 1353, 1358-60 (Fed. Cir. 1999); *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1572 (Fed. Cir. 1996). The reason, suggestion or motivation to combine prior art references must be based explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, “leading inventors to look to references relating to possible solutions to that problem.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed. Cir. 2000). As stated by the Federal Circuit, “Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.” *Dembiczak*, 175 F.3d at 999; see also *Ruiz* 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions). This is because “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint of piecing together the prior art to defeat patentability – the essence of hindsight.” *Dembiczak*, 175 F.3d at 999. Thus, it has been consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teaching in the particular manner claimed. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000) Thus, “particular finding must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000), emphasis added. “In other words, the examiner must show reasons that the skilled artisan,

confronted with the same problems as the inventor and with the knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.” *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998), emphasis added.

Applicants respectfully assert that the references do not supply a reason, suggestion or motivation to combine Laurent *et al.* and Lim *et al.* As stated in M.P.E.P. § 2143.01: “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” The motivation to combine the references proffered by the Action is that Lim *et al.* states that the disclosed quaternary oxidation bases are suitable for the claimed utility, not an unusual statement in a patent application. If this was a sufficient finding to support a *prima facie* case of obviousness, Laurent *et al.* could be readily combined with any patent application disclosing oxidation bases. Such ease of combining references is not the law. The Action states that Laurent *et al.* “teaches a hair dyeing composition comprising oxidation bases such as para-phenylenediamine compounds represented by a formula (1).” However, Laurent *et al.* teaches a specific dyeing composition directed to slowing the development of the oxidizing agent, requiring a composition comprising a combination of either an oxyalkylated fatty alcohol or a glycerolated fatty alcohol and a hydroxylated solvent in addition to an oxidative dye and a cationic amphiphilic polymer comprising at least one fatty acid. Laurent *et al.* broadly discloses suitable oxidant dyes, such that “representative oxidation dyes include ortho-phenylenediamines, para-phenylenediamines, double bases, ortho-aminophenols, para-aminophenols, heterocyclic bases and their acid addition salts” (page 10, paragraph 0264). The para-phenylenediamines are themselves broadly disclosed in a generic formula, wherein the thousands of potential structures include, once the “R” groups have been suitably parsed, pyrrolidine derivatives. Lim *et al.* discloses “useful hair coloring

systems [that] comprise quaternized pyrrolidone compounds” (Abstract). Why replace the generically disclosed pyrrolidine containing bases of Laurent *et al.* with the quaternized bases of Lim *et al.*? **Nothing** in either reference provides a motivation or suggestion of the **particular** desirability to modify the **specific** compositions of Laurent *et al.* directed to slowing the rate color formation with the **particular** quaternized dyes of Lim *et al.*, as opposed to any other possible oxidant base.

Further, the nature of the problem to be solved does not supply a reason, suggestion or motivation to combine the references. A reason, suggestion or motivation has been found in the nature of the problem to be solved when two prior art references address the precise problem that the patentee was trying to solve. This is not the case. Laurent *et al.* was trying to slow down the oxidation reaction (see page 1, paragraph [0016]) and Lim *et al.* were looking for oxidation bases with relatively weak sensitizers. The instant application is trying to improve chromatic, fastness, selectivity and intensity properties of cationic quaternary para-phenylenediamines oxidation bases (page 3, lines 12 – 35). Finally, there is no evidence that the knowledge of those of ordinary skill in the art would supply a reason, suggestion or motivation to combine Laurent *et al.* and Lim *et al.*

The Action has not provided any particular findings to support an explicit or implicit reason, suggestion or motivation to combine Laurent *et al.* and Lim *et al.* in: 1) the prior art references themselves; 2) the knowledge of those of ordinary skill in the art that certain references are of special interest or importance in the field; or 3) the nature of the problem to be solved. The Action has **only** shown that the references can be combined, a standard specifically repudiated by the M.P.E.P. Applicants respectfully assert that the Action has not met the evidentiary burden, as required by current case law, to proffer particular findings as to why a

skilled artisan, confronted with the same problems as the inventors and no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

***d. If Murakami was prior art, there would be no motivation to combine the teachings of Murakami with the teachings of Laurent et al. and the teachings of Lim et al.***

Murakami does not claim, exemplify, nor recite vitamins and provitamins as required elements of a composition. Vitamins are recited as one of a number of potential optional ingredients including “permeation promoting components, oils or fats, surfactants, thickeners, vitamins, UV absorbents, antioxidants, humectants, anti-inflammatory agents, pH regulators, preservatives, coloring agents, water-soluble polymers, perfumes, stabilizers, metal sequestering agents and propellants” (page 6, paragraph 0081). In addition, the dye compositions of Murakami are directed at the use of natural pigments and an inorganic white colorant, a methodology which is completely different from the oxidation dyeing compositions and methods carried out according to the present invention.

The Action must provide particular findings to support an assertion of motivation for one of skill in the art, with no knowledge of the present specification, to sift through the optional additives in Murakami, select particular vitamins, and then use the vitamins to modify the optional vitamin additives in Laurent *et al.*, a reference directed at slowing down the development of oxidant bases. No such particular findings were proffered. Thus, combination appears to be simply a construct of the use of hindsight with the selection of the references based solely on the recital of the appropriate element somewhere in the text. Thus, assuming the subject matter of Murakami was properly cited as a reference, the Action provides nothing more than the impermissible use of hindsight. Consequently, the rejections would be legally

insufficient in that a *prima facie* case of obviousness would not have been established if the subject matter of the reference was properly citable as prior art.

*e. Request for reconsideration and withdrawal of rejections.*

In light of the foregoing, Applicants respectfully request that the rejection of claims 1-8, 10-11, 22-48 as being obvious over Laurent *et al.* in view of Lim *et al.* and further in view of Murakami *et al.* be reconsidered and withdrawn.

**C. The Objections to Claims 9 and 12-21 are Moot**

Claims 9 and 12-21 are objected to as, while being otherwise allowable, depending upon a rejected base claim. These objections are rendered moot because the base claims from which these claims depend are allowable for the reasons set forth above.

However, Applicants have added new claim 49 that incorporates formula (III) and (IV) as limitations as well as formula (II), wherein formula (II) is limited by a proviso such that R<sub>4</sub> cannot be an alkyl group when the linker D is a covalent bond. Applicants believe that this renders the cationic tertiary para-phenylenediamine compounds of formula (I) distinct from those disclosed by Lim, *et al.* and that claim 49 is allowable independent of the above arguments.

**D. Conclusion**

Applicants believe that the present document is a full and complete response to the Office Action dated November 17, 2004. The present case is in condition for allowance, and such favorable action is respectfully requested.